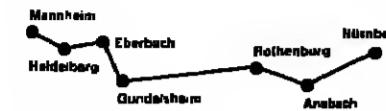


Routes to tour in Germany



The Castle Route



German roads will get you there. But why miss the sights by heading straight down the autobahn at 80? Holiday routes have been arranged not only to ensure unforgettable memories but also to make up an idea for a holiday in itself. How about a tour of German castles?

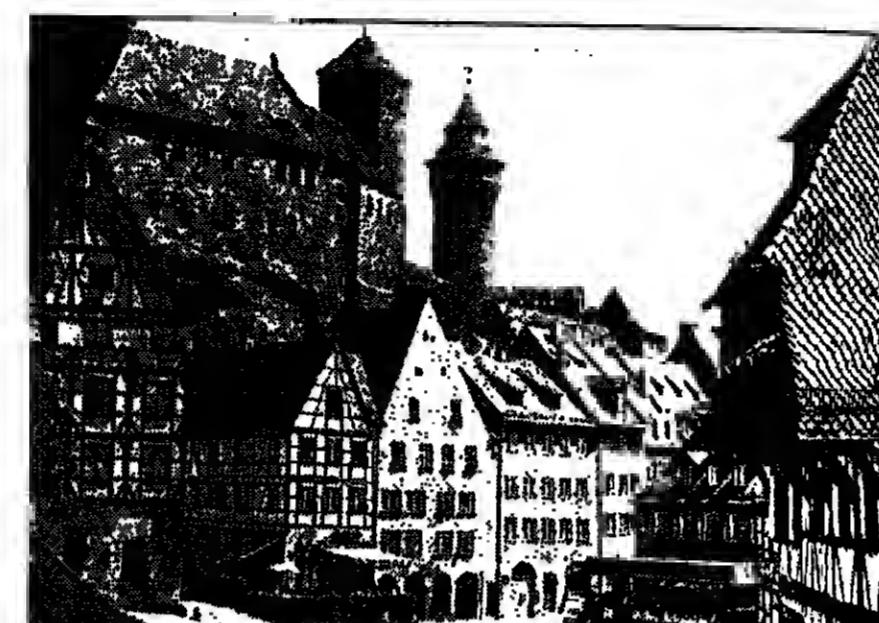
The Castle Route is 200 miles long. It runs from Mannheim, an industrial city on the Rhine with an impressive Baroque castle of its own, to Nuremberg, the capital of Bavarian Franconia. The tour should take you three days or so. We recommend taking a look at 27 castles en route and seeing for yourself what Germany must have looked like in the Middle Ages. The mediaeval town of Rothenburg ob der Tauber is intact and unspoilt. Heidelberg is still the city of the Student Prince. In Nuremberg you really must not miss the Albrecht Dürer House.

Come and see for yourself the German Middle Ages. The Castle Route will be your guide.

- 1 Gundelsheim/Neckar
- 2 Heidelberg
- 3 Nuremberg
- 4 Rothenburg/Tauber



DZT DEUTSCHE ZENTRALE
FÜR TOURISMUS EV.
Beethovenstrasse 69, D-6000 Frankfurt/M.



The German Tribune

Hamburg, 26 July 1987
Twenty-sixth year - No. 1283 - By air

A WEEKLY REVIEW OF THE GERMAN PRESS

C 20725 C
ISSN 0016-8858

Kohl rides high on visit to China

RHEINISCHER MERKUR

Bonn Chancellor Helmut Kohl has completed a visit to China where he apparently confirmed his excellent personal relations with senior Chinese politicians. He met party chief Deng Xiaoping for the third time, something of record for a Western politician (the previous meetings were in 1974, when Kohl was Premier of Rhineland-Palatinate, and in 1984 as Chancellor). Informants say that Deng confirmed to Kohl that the Prime Minister, Zhao Ziyang, is to take over as party chief in October. Kohl was the first foreign politician to be told.

One of Helmut Kohl's strong points is his ability to make, to maintain and to use personal contacts.

Ronald Reagan, Margaret Thatcher, François Mitterrand, Yasuhiro Nakasone — the Chancellor gets on well with them all, regardless of differences on specific issues.

A similar long-term, beneficial relationship seems to be in the making between Chancellor Kohl and Chinese Premier Zhao Ziyang.

Despite substantial ideological differences between the German Christian Democrat and the Chinese Communist the spark seems to have flashed over from the one head of government to the other.

There may be a 12-year difference in their ages (Herr Kohl is 57, Mr Zhao is 69), but in terms of the ages of leading politicians in the two countries they could be the same age.

Both are pragmatists. Helmut Kohl has been at the helm in Bonn for nearly five years; Zhao Ziyang will in all probability take over as China's No. 1 in October.

Premier Zhao overwhelmed the Chancellor with protocol tokens of esteem on his visit to Peking. Political talks lasted much longer than planned and Mr Zhao gave two dinners in honour of the German head of government.

The Chinese Premier dealt at length with the trade delegation that accompanied the Chancellor and insured it he would give personal attention to the problems they encountered in economic cooperation.

The benefits of such contacts are self-evident. For an export-oriented economy such as that of the Federal Republic of Germany, which earns a third of its national income from exports, long-term access to the gigantic Chinese market, with one billion people and a wealth of resources, many of which have barely been tapped, is a vital precaution.

It would be shortsighted to think

solely in terms of short-term success. Long-term concepts are the only way to ensure that work — and jobs — will be available in the future.

German businessmen can hardly hope to make a swift breakthrough in the China trade. Their competitors, especially the Japanese, are faster, less expensive and closer at hand.

Herr Kohl was told time and again in Peking that German goods were not only expensive; German exporters showed little flexibility in the financial terms they offered.

The reasons why China still does business with Germany are product quality and German readiness not only to sell the goods but also to share the know-how.

An instance of this flexibility was the offer to help China to reduce its trade deficit with the Federal Republic, a deficit totalling over DM3bn.

With German business backing, the Chancellor was able to offer the Chinese assistance in their efforts to gain a foothold in the German and European market.

In an unprecedented move, trade associations, chambers of commerce and industry and individual firms in the Federal Republic are to advise Chinese exporters on doing business with the West.

Heinrich Weiss, German commercial spokesman on trade with China, is confident the campaign will be a success.

China, he says, has yet to undertake systematic market research in Europe. Advertising for Chinese products has been totally inadequate. Their presentation and packaging have not been in keeping with European tastes.

Chinese exporters have not been represented as aggressively as they might have been at trade fairs.

It remains to be seen how the interests of German importers and exporters are to be reconciled.

Shortage of foreign exchange is one main reason for the stagnation — and even slight decline — in Sino-German trade. Uncertainty as to manpower and policy changes in the wake of the 13th Chinese Communist Party congress this autumn is doubtless another.

The Chancellor's visit failed to affect either. Only the German aerospace in-



Peking meeting. Chancellor Kohl (left) with the heir-apparent of China's ruling party, Zhao Ziyang, the Prime Minister. (Photo: dpa)

dustry succeeded in booking an order: a DM50m contract to help develop and construct a Chinese telecom and TV satellite. Even this contract was well below the initially envisaged volume of about DM500m.

Other projects, such as participation in the expansion and modernisation of the Chinese telephone system, the construction of a steel pipeline works and the building of further nuclear power stations, were discussed but not finalised.

Herr Kohl sees Sino-German relations as being based on both economic and political and cultural foundations.

General political ties between Bonn and Peking are good and, in some cases, excellent. They agreed that the Soviet Union must withdraw its troops from Afghanistan and Vietnam must withdraw its forces from Cambodia.

They would both prefer to see a zero solution on medium-range nuclear missiles for the entire world and not just for Europe.

Neither the Germans nor the Chinese are at all keen on the idea of these missiles remaining stationed in Soviet Asia and in the United States, with the latent threat they would continue to pose to Russia's and America's neighbours.

China holds the Federal Republic in high esteem as a leading member of Nato and the European Community, both of which Peking would like to see strengthened and consolidated.

Cultural ties are to be strengthened in the foreseeable future by the opening of a Goethe Institute in Peking, a plan that long threatened to founder on resistance by Chinese arts officialdom.

The Chancellor succeeded in persuading Premier Zhao to put his foot down.

The details are shortly to be worked out, paving the way for effective promotion of German-language teaching in China.

Herr Kohl is particularly anxious to promote bilateral ties on as permanent a basis as possible. *Continued on page 2*

IN THIS ISSUE

GERMANY	Page 3
The Little Drummer Boy who rose to the top in East Berlin	
FINANCE	Page 6
A whiff of provincialism drifts across the urban stockmarket	
THE ARTS	Page 10
The new Sally Is Bowling them over in the aisles	
THE ENVIRONMENT	Page 12
Balloon mission will probe mystery of holes in stratosphere's ozone layer	
MEDICINE	Page 13
Public fears of radioactivity 'inhibiting' nuclear dialogue and research	
HORIZONS	Page 14
Beyond the flames of the stake, witches are riding at full throttle	

■ WORLD AFFAIRS

Arms limitation talks mark time as Soviet delegates wait for political nudges

The Geneva arms limitation talks between the United States and the Soviet Union are marking time. No progress is being made on the key issues.

This has become the longest round of talks yet. At the start, the momentum was obvious, yet it has ground to a halt.

For some time Soviet delegates have received no instructions from Moscow.

The meeting between Secretary of State Shultz and Foreign Minister Shevardnadze that was to have been held in mid-July has been indefinitely postponed.

Even if it had taken place and the necessary political nudge had been given from above, drafting a treaty on the reduction of intermediate nuclear forces in Europe would have taken until at least the end of November.

Both sides may have drafted fresh versions of their respective proposals, but proceedings so far have been limited for the most part to answering Soviet queries on technical details.

Both still face the daunting task of reaching agreement on times, places and procedures for dismantling and scrapping medium-range and cruise missiles and, above all, on inspection.

The Americans can do no more than guess why.

They assume that Mr Gorbachov is obliged by domestic reasons to realign the priorities for his reform programmes.

The Soviet leader is evidently thought to have come up against the growing opposition not only of officials worried about the power they stand to lose but also of the military and of diplomats opposed to disarmament of any kind.

Questions

When the Soviet Union was confronted, much to its surprise, with the latest US draft proposals on the reduction of intermediate nuclear forces (INF) and strategic arms (Start), its delegates began to ask questions.

The two sides' INF treaty drafts show clear signs of rapprochement. The separation of this from Europe overriding issue from strategic arms limitation talks (Start) remains valid.

The Soviet Union has yet to reply to the US Start proposals, while negotiations on future anti-missile systems, including systems in outer space, are an even remoter prospect.

Then Moscow tabled the demand for the Geneva talks to include the German Pershing Ia missiles and their

Continued from page 1

basis as possible. That is why he feels many more young Germans and Chinese ought to visit each other's country.

He favours an extensive youth exchange scheme with China and plans to increase, as a first step, the number of Chinese students in the Federal Republic from 2,000 to 3,000.

He is also strongly in favour of harnessing the experience of their elders

Frankfurter Allgemeine

nuclear warheads (under US lock and key).

America is opposed to this idea, saying the two sides had agreed from the outset that third-state systems or the Pershing Ia "combination" were not to be the subject of negotiations.

This military insignificant demand by Moscow was merely an attempt to exert political pressure on Germany and on Western Europe.

The accusations levelled by chief Soviet delegate Vorontsov in connection with alleged American delaying tactics were based on pure and simple lies.

Given goodwill, swift agreement could be reached, paving the way for a third summit conference between President Reagan and General Secretary Gorbachov.

If the INF treaty is to be ratified before the start of next year's US Presidential election campaign it must be

submitted to the Senate foreign relations committee by the end of January at the latest.

The Kremlin's US experts know this. Why, US officials wonder, is Mr Gorbachov now running the risk of delaying any progress along the lines of the Reykjavik agreement until at least 1991 when Mr Reagan's successor can be assumed to have established himself in Washington?

Are staunch supporters of Mr Gromyko such as Mr Karpov, Mr Okhukov and Mr Kvitsinsky gradually regaining the upper hand over the "moderns"?

Or has the Kremlin arrived at the conclusion that the long-term political and psychological repercussions of fostering insecurity in Western Europe are more valuable than scrapping Pershing 2 missiles?

No-one in Geneva knows.

For the Americans the US INF treaty draft is a major step in the direction of scrapping nuclear weapons, especially as Moscow would have to lose much more than Washington.

It would also strengthen Nato. The North Atlantic pact would forfeit neither its capacity for graduated re-

sponse to a Warsaw Pact attack nor protection afforded by America's nuclear deterrent.

The treaty might also prove a model for a Start treaty aimed at a 50 per cent reduction in long-range strategic weapons.

But never again, US officials say, is America going to make the mistake of concluding a general arms control agreement merely for the sake of short-term political success at a summit meeting.

The Senate, they say, will only take treaties that definitely, verifiably secure a breakthrough to a reduction in nuclear weapons.

No cause for alarm

At present it looks in Geneva though that will be a while yet.

America's Nato allies have no cause for alarm, however.

It is now up to them to show the same resolution that made the talks possible in the first place — after the dual-track decision — even if the end may not yet lie in sight.

Sooner or later the last 20 minutes will begin that chief US delegate Max Kampelman is prepared to sit and wait for. So patience and strong nerves are required.

Inn Reifeberg
(Frankfurter Allgemeine Zeitung
für Deutschland, 18 July 1987)

for East Germany the visit as such is a major success. For Herr Honecker, who will just have turned 75, it will be the crowning achievement of his political career. His visit to Bonn adds the last missing link in the pattern of international recognition. For Herr Honecker it has been worth the wait enforced upon him by Moscow.

In December 1981 he was invited by Chancellor Schmidt, at their Werbellinsee meeting in East Germany, to pay the Federal Republic a working visit. After the change of government in Bonn Chancellor Kohl renewed the invitation.

The visit as planned in 1984 was to have included links between Herr Kohl and Herr Honecker outside Bonn but not, to begin with, a reception for Honecker by the Federal President.

The visit has now been upgraded in protocol terms. Herr Honecker will be welcomed to Bonn on the same basis as Mr Brezhnev on his 1981 visit and as

France's arch-enemy.

France's continual shelling of arms to Iran's enemy, Iraq, means of dubious arms supplies to the United States has succeeded in creating the No. 1 list of Iran's former enemy. France has taken America

not, the alleged victim of French violence played his part in an official drama staged to mobilise the Iranian masses against France.

France's continual shelling of arms to Iran's enemy, Iraq, means of dubious arms supplies to the United States has succeeded in creating the No. 1 list of Iran's former enemy. France has taken America

not, the alleged victim of French violence played his part in an official drama staged to mobilise the Iranian masses against France.

Germany does not supply arms to Iraq. It can only hope that the UN Security Council will declare a general ban on arms supplies to the Gulf.

The stuff of conflict that led to the break between Paris and Teheran does not apply to Bonn. But Paris and Bonn have similar experiences in connection with hostage-taking for blackmail.

Bonn still hopes the powerful military in Teheran will save the lives of the German hostages in Beirut, Cordes and Schmidt. The two men are being held by Lebanese supporters of Khomeini's bargaining counter for the Hanafi brothers, terrorist suspects who are due to be tried in a German court.

Bonn will not be following France's example, but criticism of the move should be limited.

For years Ayatollah Khomeini incited the Iranian people by radio from his French exile against the Shah. His gratitude for French hospitality was brief and limited.

It was transformed into hatred when France began to supply Iraq with weapons.

The French government first sought to come to terms by a policy of meeting Teheran half-way. Islamic pro-Khomeini terrorists were handled with kid gloves. Opponents of the Iranian leader were deported from France to appear before him.

Guilt or innocence no longer matter.

All Iranians are felt to be entitled to the protection of the revolution, especially if they themselves are ruthless revolutionaries.

Ludicrous details form part of the battle of besieged embassies. An Iranian diplomat was presented to hastily summoned journalists in Geneva on a stretcher. He was said to have been manhandled by French customs officers at the border.

The doctor called in to treat him said it was mere slapstick. Voluntarily or

and proposed the establishment of what would amount to a council of elders from both countries. Its members would be people well versed in relations between the Federal Republic and China.

Their task would be to submit proposals to the two governments on how best to arrange and develop Sino-German ties from 2,000 to 3,000.

Walter von Tiesenhausen

France finally loses patience with Iran and cuts adrift

In breaking off relations with Iran, Paris has shown that its patience is at an end. Reciprocal accusations of bombing and espionage are secondary to the main bone of contention, the supply of French weapons to Iraq, Ayatollah Khomeini's arch-enemy.

France's extensive arms trade has led to tension that Germany, as a non-supplier, has been spared.

The various Khomeini supporters have, for their part, lost any sympathy they might have had by planting bombs in the centre of Paris and holding people to ransom.

Bonn will not be following France's example, but criticism of the move should be limited.

For years Ayatollah Khomeini incited the Iranian people by radio from his French exile against the Shah. His gratitude for French hospitality was brief and limited.

It was transformed into hatred when France began to supply Iraq with weapons.

The French government first sought to come to terms by a policy of meeting Teheran half-way. Islamic pro-Khomeini terrorists were handled with kid gloves. Opponents of the Iranian leader were deported from France to appear before him.

Guilt or innocence no longer matter.

All Iranians are felt to be entitled to the protection of the revolution, especially if they themselves are ruthless revolutionaries.

Ludicrous details form part of the battle of besieged embassies. An Iranian diplomat was presented to hastily summoned journalists in Geneva on a stretcher. He was said to have been manhandled by French customs officers at the border.

The doctor called in to treat him said it was mere slapstick. Voluntarily or

and proposed the establishment of what would amount to a council of elders from both countries. Its members would be people well versed in relations between the Federal Republic and China.

Their task would be to submit proposals to the two governments on how best to arrange and develop Sino-German ties from 2,000 to 3,000.

Walter von Tiesenhausen

Rheinischer Merkur/Christi und Welt,
Bonn, 17 July 1987

Continued from page 1

basis as possible. That is why he feels many more young Germans and Chinese ought to visit each other's country.

He favours an extensive youth exchange scheme with China and plans to increase, as a first step, the number of Chinese students in the Federal Republic from 2,000 to 3,000.

He is also strongly in favour of harnessing the experience of their elders

and proposed the establishment of what would amount to a council of elders from both countries. Its members would be people well versed in relations between the Federal Republic and China.

Their task would be to submit proposals to the two governments on how best to arrange and develop Sino-German ties from 2,000 to 3,000.

Walter von Tiesenhausen

Rheinischer Merkur/Christi und Welt,
Bonn, 17 July 1987

Continued from page 1

basis as possible. That is why he feels many more young Germans and Chinese ought to visit each other's country.

He favours an extensive youth exchange scheme with China and plans to increase, as a first step, the number of Chinese students in the Federal Republic from 2,000 to 3,000.

He is also strongly in favour of harnessing the experience of their elders

■ GERMANY

At last, it's on: Honecker to visit Bonn

Frankfurter Allgemeine



Erich Honecker... toed party line with navaer a falaa atap. (Photo: Sean Simon)

After several false starts, the East German leader, Erich Honecker, is to visit the Federal Republic. He will be welcomed in Bonn in September with full honours as head of the other German state.

For East Germany the visit as such is a major success. For Herr Honecker, who will just have turned 75, it will be the crowning achievement of his political career. His visit to Bonn adds the last missing link in the pattern of international recognition. For Herr Honecker it has been worth the wait enforced upon him by Moscow.

For the Federal government, and thus for Germans in East Germany, the visit will only be a success if it contributes towards a lasting further improvement in the position of people in divided Germany.

It will be a while before it can be said whether this has been accomplished. The framework agreement on environmental protection and the agreement on scientific and technological exchange will probably be signed during the visit.

But the sectors in which, in addition to cultural ties, a substantial degree of expansion and cooperation is both possible and desirable.

The visit as planned in 1984 was to have included links between Herr Kohl and Herr Honecker outside Bonn but not, to begin with, a reception for Honecker by the Federal President.

The visit has now been upgraded in protocol terms. Herr Honecker will be welcomed to Bonn on the same basis as Mr Brezhnev on his 1981 visit and as

France's arch-enemy.

France's continual shelling of arms to Iran's enemy, Iraq, means of dubious arms supplies to the United States has succeeded in creating the No. 1 list of Iran's former enemy. France has taken America

not, the alleged victim of French violence played his part in an official drama staged to mobilise the Iranian masses against France.

Germany does not supply arms to Iraq. It can only hope that the UN Security Council will declare a general ban on arms supplies to the Gulf.

The stuff of conflict that led to the break between Paris and Teheran does not apply to Bonn. But Paris and Bonn have similar experiences in connection with hostage-taking for blackmail.

Bonn still hopes the powerful military in Teheran will save the lives of the German hostages in Beirut, Cordes and Schmidt. The two men are being held by Lebanese supporters of Khomeini's bargaining counter for the Hanafi brothers, terrorist suspects who are due to be tried in a German court.

He will also be received for talks with the Federal President at Herr von Weizsäcker's official residence.

In contrast to 1984, when Herr Honecker's visit was postponed largely at Moscow's insistence, the climate of international affairs is favourable.

East Berlin is interested in ensuring that foreign exchange is available to pay for these measures and in concluding agreements on rail and road construction projects to and from Berlin that earn hard currency.

West Berlin must naturally play a major role in all these agreements. After the failure of Governing Mayor Diepgen's attempt at "visit diplomacy" West Berlin must be firmly entrenched once more in the intra-German debate.

Relations between Russia and America have similarly taken a turn for the better from the Soviet viewpoint. Despite the present difficulties Mr Gorbachov seems to expect the Geneva talks on medium-range missiles to come to a successful conclusion before long.

Herr Honecker's policy of dialogue, pursued despite initial Soviet misgivings, has doubtless contributed toward the improvement in East-West relations.

Herr Honecker's policy of dialogue, pursued despite initial Soviet misgivings, has doubtless contributed toward the improvement in East-West relations.

His "now more than ever" viewpoint on talks with the West not only helped to forestall a freeze after Nato's Pershing 2 and cruise missile modernisation programme; it also abetted the course of foreign policy understanding steered by Mr Gorbachov since he came to power in 1985.

Herr Honecker's visits to Italy, Greece, Holland and China have been helpful for the Soviet leader.

He may not be prepared to adopt Mr Gorbachov's domestic "restructuring"

■ DEFENCE

Generals not happy at tight rein on spending

Hannoversche Allgemeine

The Bundeswehr says it needs another 500 million marks a year to fulfil its defence role. But the indications are that it is not going to get it.

Present government intentions are to allocate 18.1 per cent of next year's budget to defence. In the 1991 estimates it is also envisaged at 18.1 per cent.

Bundeswehr inspector-general Dieter Wellerhoff says this allocation might just be enough to maintain combat strength, but that strength could not be increased in the long term.

The Bundeswehr will run short of manpower in a few years when babies of the low birth-rate years reach conscription age. But it is also likely to run short of ammunition, tanks and guns too?

Will disarmament no longer be negotiated at the MBFR truce cut talks conference table in Vienna but by simply fiddling with the defence estimates in Bonn?

The first point to make is that the clash between military demands and budgetary constraints is neither an invention of the present Bonn coalition nor limited to the Federal Republic.

Nato supreme commander General Baget demands in 1978 for an annual increase in defence spending of three per cent in real terms has yet to be met by any member of the North Atlantic pact.

The trend in defence spending in Europe is down.

The financial framework of Finance Minister Stoltenberg is, of course, no more than a direction sign. Decisions

have not been reached: neither on the cash nor on the cuts the military will need to make.

Next year's defence estimates will amount to 18.1 per cent of Bonn budget spending; the 1991 estimates only 18.1 per cent, which shows that the Bonn government does not see defence spending as sacrosanct.

Defence Minister Manfred Wörner cannot be satisfied with these estimates and will clearly fight for every extra mark — as he has already indicated.

Whether the DM500m more a year the Bundeswehr is said to need to fulfil its defence role in a manner appropriate to the threat is enough is another matter.

The armed forces will have enough tanks, ships and field artillery until the end of the century.

The costliest current project, the DM20bn fighter aircraft under joint development by Britain, Germany, Italy and Spain is clearly still called into question — and more vehemently than ever.

Unit costs for the plane are already DM100m — and that at a stage when not even the definition phase has been completed.

Already many experts are afraid the fighter's cost may skyrocket like that of the Tornado, a previous European combat aircraft project.

So the new slogan is to boost the potential of existing systems.

Existing weapon carriers are to be modernised to ensure they are up to the latest technological standards. The 7 July Bundeswehr planning conference clearly endorsed this approach.

There is, of course, a connection between the taxpayer's outlay on the armed forces and the security they provide.

Outmoded weapons stand no chance of beating a better equipped opponent. So it would be pointless not to equip the Bundeswehr with the latest material.

A country such as the Federal Republic, which had no choice but to accept the vicious circle of the arms race, cannot suddenly impose a unilateral freeze — unless agreement is reached with the other side.

New ideas can transform entire weapon categories into junk. Every move in weapons modernisation triggers its counter-move in a never-ending spiral.

How effective modernisation and counter-modernisation are and whether they are decisive cannot be simulated by a computer nor yet be extrapolated from budget statistics.

So claims that defence estimates at one level make it possible to defend the country in a manner corresponding to the threat whereas another level fails to do so are merely digital games.

The very definition of what makes up the threat is wide open to interpretation. An increase in combat strength can never be seen in absolute terms, only ever in the reciprocal context of the adversary's abilities and opportunities.

Justification

So it is advisable not to take the explanations the military put forward in support of their cash claims too much at face value.

They are bound to be military in nature, but military matters have grown so complex they can be used as a justification for virtually any demand.

The decision is, in any case, up to the Bundestag, which assesses the cost of defence in connection with the overall context of services the state is expected to provide.

That, in the final analysis, will depend on what the Bundestag feels it can justify to voters.

*Hans-Anton Pappeldeick
(Hannoversche Allgemeine, 13 July 1987)*

Determination to press on with anti-tank helicopter

The new fighter is said to be the last high-performance combat aircraft in its category planned between now and the year 2020.

Ministry officials continue to lament the general financial constraints envisaged in the years to come.

Planners say they will be DM44bn short of initial estimates of cash required until the end of the century.

This being so, the claim that conventional fighting strength can be maintained is said to be optimistic. A 20-per-cent decline in combat capacity is likely in the mid-1990s.

So the 9 December Cabinet session at which a decision is to be arrived at on higher expenditure in medium-term financial planning is keenly awaited at the Defence Ministry.

Yet officials already have no hope of sufficient additional funding being made available.

Despite spiralling defence costs Bonn remains firmly resolved to go ahead with the Franco-German project to develop a second-generation anti-tank combat helicopter.

Defence Minister Manfred Wörner made this clear to his French opposite number, André Giraud, on a three-day visit to France.

The decision is mainly based on Chancellor Kohl's determination to consolidate Franco-German ties by means of specific joint projects.

Defence Ministry planners in Bonn expect the cost of developing and manufacturing the proposed 212 helicopters to total roughly DM9bn by 1998.

The German share of development costs has already increased from an original estimate of DM850m to DM2.1bn.

Yet Defence Ministry officials say funding is assured.

After the summer recess a decision can be expected on another costly arms programme, the European fighter aircraft for the 1990s.

Unlike on the anti-tank helicopter, Bonn Defence Ministry officials are not prepared to hazard a guess on the outlook for the fighter.

The sole argument advanced against abandoning the project is that both the German and the European arms industry would then suffer a serious setback.

Serious problems in connection with the concept for the Bundeswehr's defence role are predicted if, as expected, sufficient funds are not forthcoming.

In the 1990s, it is argued, heavy expenditure on recruitment will be indispensable on account of the manpower shortage. That will make the armed forces more expensive.

Setting estimates at too low a level would thus be to seriously jeopardise manpower strength, especially as the latest figures indicate that sanguine hopes of recruitment in the years ahead will probably need to be revised.

The reported statement by army inspector General von Sandratz at the defence planning conference (he doubted in the circumstances whether the forward defence concept could still be upheld) has accordingly not been expressly disputed by Ministry officials.

Defence Ministry planners also feel that forward defence will be impossible with fewer soldiers than expected. Nato in general has long been reduced to a bare operational minimum.

Thomas Meyer
(Süddeutsche Zeitung, Munich, 16 July 1987)

Equalities out of troop-cut inequalities

Federal government thinking on the conventional deterrent incorporates the consideration that there is little geographical or strategic point in attaching equal importance to troop cuts all over Europe.

Bonn is determined to differentiate regionally, aiming at uniform troops in specific areas on either side.

They are, for instance, the Soviets on west of the Urals in the Eaucasus, Spain and Portugal in the West-Central Europe on both sides of the border between Nato and the Warsaw Pact, the Kola peninsula and Norway on Europe's northern flank and on its southern flank Hungary and Bulgaria in the East and Italy, Greece and Turkey in the West.

A balance must be established instead of these pairs of regions.

There are also misgivings in Bonn that Soviet supremacy could be conceded if disarmament were to go ahead at the same rate from the same time on both sides.

Two lines of thought are under consideration to rule out this risk. Either the superior side starts cuts first or different pace of disarmament is agreed for each side.

Defence planners are worried the even limited degree of conventional disarmament by the West could mean a serious setback to the concept of forward defence.

That, among other reasons, is why the overriding disarmament plan of Bonn Defence Ministry officials is to reduce invasion capacity on both sides.

Where nuclear disarmament is concerned, Ministry officials are for the moment concentrating on the consequences of the initially controversial double zero solution for medium-range missiles.

In this context US reports that the Federal government is now prepared to dispense with the updating of short-range (120km) Lance missiles planned for the 1990s are categorically denied.

Modernisation of these systems including an extension of their range to between 240 and 450km, continues to be deemed desirable.

But Bonn has no interest in increasing numbers. It is strictly opposed to bridging gaps left by medium-range missile reduction by stationing a larger number of shorter-range missiles.

Defence Minister Manfred Wörner, addressing the Konrad Adenauer Foundation on problems of conventional disarmament, said Nato needed an integrated concept combining military strategy and disarmament.

The aim must be to fundamentally restructure the European security landscape with a view to lasting stability, balance of power and reduction in invasion capacity.

"In referring to the threat," he said, "we do not imply that the Soviet leaders intend to attack the West or are intent on waging war."

"The threat as we see it lies in invasion capability and in its effect on the ability to act and the independence of European states in peacetime."

Thomas Meyer
(Kölner Stadt-Anzeiger, Cologne, 15 July 1987)

■ PERSPECTIVE

Soviet Germans dream of going west, going home

RHEINISCHER MERKUR

— until Hitler's invasion caused Stalin to suspect Russian Germans of collaboration.

He banned them, deporting them east of the Urals, where they still live in several Soviet republics. Many find it hard to see Kazakhstan, Kirgizia and Tadzhikistan as home.

Mandatory patriotism is not enough even to provide moral support to help them overcome the deprivation of rights and humiliation they underwent.

They were rehabilitated under Khrushchev in 1964, but this did not go far as allowing them to return to their old homes in European Russia or of setting up of autonomous areas where they now live in large numbers.

They refer to West Germany as home. Yet it is a country they have never seen. It is also a country the Soviet media treats harshly.

In Kazakhstan there are roughly 900,000 ethnic Germans, and a further 700,000 or so in the Asian part of the Russian Soviet Union.

Only they and the Crimean Tartars are still denied the right to self-administration and return to their original settlement areas.

Both points preoccupy Russia's ethnic Germans more than many might like to imagine. They occasionally revisit their former villages and towns round Saratov on the Volga, and their descriptions call to mind visits to East Prussia, Silesia or Sudeten Germany by former German residents.

Russian Germans never forgot the old country, but they had no difficulty in seeking and finding new homes in the Ukraine, on the Volga and on the Black Sea.

Even after the October revolution and the creation of the Soviet Union they seemed able to adjust and survive.

Changes are registered. The old school is visited. Childhood is recalled.



Ethnic Germans in Russia listen to a Soviet officer. The backdrop shows photos of Lenin and other Soviet motifs and the banner poses a question about where home is.
(Photo: TASS/Jirgens)

No mention is made of a possible return. That is ruled out.

Autonomy is another matter. Since Mr Gorbachev embarked on his policy of glasnost people have dared to reconsider the idea.

It is, for the most part, the new intellectuals among Russian Germans who favour the creation of an autonomous region, arguing that it would boost their fellow-countrymen's loyalty to the Soviet Union.

Despite a drastic reduction in the number of exit permits issued in recent years 65,000 have applied to leave.

They have little interest in autonomy in Kazakhstan; they want to go home, by which they mean the Federal Republic.

To read *Neues Leben*, the German-language newspaper published in Moscow, is to be told a different story of the Russian Germans' love of the Soviet fatherland, sense of duty and determination to construct socialism.

Regular reports tell the tale of people "persuaded" to migrate to the West who have failed to come to terms with life here and bitterly regret having applied for exit permits.

Disappointed returnees are interviewed at length. Passages from letters, especially disparaging descriptions, are quoted. In vain, of course.

Anxiety

Soviet reality, not Western persuasion, is what prompts ethnic Germans to apply for exit permits. They are anxious to ensure an identity and a future for themselves and their children.

Confidence in the state and in a future in the Soviet Union will be strictly limited for as long as no mention can be made of past and present.

Readers simply don't want to know when Johann Schärf, a member of the presidium of the supreme soviet of the Kazakh Soviet Socialist Republic and hero of socialist labour, tells his "dear fellow-countrymen" in *Neues Leben* how humane his family's evacuation from Rostov was during the Second World War.

And even he admits that his tale might be considered untypical.

Yet other voices can be heard — and must not be ignored. On New Year's Day *Neues Leben* published interviews with six German-language members of the Soviet Writers' Association.

"A well-known journalist," said Herold Beiger, "constantly asks me why we

We talk about a new era, restructuring, accelerating, a wind of change. But are we writers not hunting old songs? Can we not hear the new ones? Or don't we want to hear them?"

One wonders whether they can still sing their old songs. German is dying out in the Soviet Union. Only just over half the two million Russian Germans say German is their native language. Educational standards are low, mistrust is widespread.

Without a doubt the establishment of the German theatre in Temirtau, Kazakhstan, in 1980 was an event of cultural importance. German-language writing by Russian Germans has undergone remarkable development in recent years.

It is in the process of parting company with prescribed clichés. But German language teaching at school remains unsatisfactory. Fragmentation of ethnic Germans has encouraged assimilation.

As matters stand, most of the Russian Germans will remain in their new settlement areas east of the Urals and in Central Asia.

Should liberalisation begin and take root in the Soviet Union, the German minority could gain greater self-confidence — and, perhaps, a limited degree of autonomy?

It is far from inappropriate to consider these issues in the West. What Russian Germans expect from the Federal Republic is tactful and realistic assistance in two respects.

First, Bonn must support the exit permit applications of those who want to leave the Soviet Union. Second, it must give Germans who stay in the Soviet Union greater cultural backing.

Both are virtually impossible at present and the extent to which they are possible in future will largely depend on how far suspicion between the two countries (and between the Soviet Union and its own citizens) can be reduced.

The yardstick will, in the final analysis, be the free decision of Russian Germans to choose their own home and settle down in it.

Franz Heinz
(Rheinischer Merkur/Christ und Welt,
Bonn, 10 July 1987)

■ FINANCE

A whiff of provincialism drifts across on the urbane stockmarket air

A new dimension has been added to the West German stock markets. A four-year long bullish market not only brought the wildest price rises for decades but also an explosion in the volume of trade.

Technical and organisational innovations helped West Germany to gain ground, particularly against London, the traditional European financial hub.

But despite developments they are still considered to be under developed. Many specialists say they detect a whiff of provincialism in German stock exchanges.

One yardstick for the relative backwardness or progressiveness in the development of a trading centre, within the framework of a world market which is developing closer ties, is the number of equities quoted on the exchange.

London led the world in 1986 with 2,400 quotations. New York followed closely with 2,300. At a respectable distance came Tokyo and Toronto with about 1,200 each. Frankfurt stands behind Paris and Amsterdam but ahead of Zurich with about 400 quotations.

One has to look way down the list to find Düsseldorf, Munich, Hamburg, Berlin, Stuttgart, Bremen and Hannover, which are the other seven West German exchanges. However the turnover is a more reliable indicator of an exchange's importance than the number of equities quoted on it.

ber of firms quoted. As the old speculators in Germany say: "What's being spent is what counts."

If one's yardstick is share turnover, then West Germany fares a lot better.

Admittedly the difference in turnover between Frankfurt and New York and Tokyo is even more enormous. But for all that it's still 10 per cent. In comparison to the former world leader, London, the Germans, taken together, have regional as well as national.

The Frankfurt exchange deals with about 50 per cent of all daily share-dealings in West Germany. Düsseldorf handles about 20 to 25 per cent and the rest are divided up among the other six regional centres, with Hamburg and Munich having a bigger say than the others.

Things look a lot different when it comes to allocating turnovers to the different individual shares and stocks. The top 10 in this league regularly includes Siemens, Daimler and Volkswagen, Bayer, Hoechst, BASF, Deutsche Bank, Dresdner Bank and Commerzbank together with its insurance sister-company Allianz Holding.

Experience shows that such thinking is little more than wishful. Even technological progress in trading techniques failed previously to prevent a strong concentration of share business from taking place. And this failure has been regional as well as national.

The Frankfurt exchange deals with about 50 per cent of all daily share-dealings in West Germany. Düsseldorf handles about 20 to 25 per cent and the rest are divided up among the other six regional centres, with Hamburg and Munich having a bigger say than the others.

For German markets it's the price they have to pay for becoming truly international. Especially as many German companies have themselves become multinational.

A poet once said something that can be freely interpreted about the trend of centralisation. "Where the danger is greatest the saviour must be." In other words, rules and methods to prevent unbridled use of power.

Elmar Körnigk
(Stuttgarter Zeitung, Munich, 14 July 1987)

According to mood and department business outlook, other extensive joint-stock companies such as Veba, Mannesmann and Thyssen the more speculative BMW and Conti-Gummi, which moved up in the last few days, moved to the top of the league.

The 10 stocks with the highest turnovers together often make up nearly three quarters of the all turnover of large stocks.

The concentration on blue-chip stocks is more evident if instead of regarding the first 10, one looks at the first 15.

Concentration can cause problems because it may lead to a conglomerate of interests. All the evidence available would seem to suggest that the pace of trend in capital markets is likely to continue.

For German markets it's the price they have to pay for becoming truly international. Especially as many German companies have themselves become multinational.

The earmarking division also accounts for the lion's share of profits. Commercial vehicles are reported to run at a profit too, but not even Daimler-Benz will be able to withstand the pressure on prices (and earnings) resulting from worldwide surplus capacity. At the end of 1986 the group had a payroll of about 320,000.

Daimler-Benz has for years been the country's largest corporate taxpayer. Last year the Daimler-Benz AG paid a record DM3.4bn in earnings-related tax. A new management structure was introduced in the New Year, with cars, commercial vehicles, AEG, MTU and Dornier as separate divisions and other departments in charge of finance and management, research and technology, materials, personnel and marketing.

(Frankfurter Allgemeine Zeitung für Deutschland, 14 July 1987)

the EEC and, as a result, belongs to the top end of the tax market. So there is not as much justification for increasing value added tax as there is. It seems the whole it is not possible to harmonise taxation spread by simplification of the tax rates. This would simply not take into account variations and weightings within the different national systems.

For this reason, harmonisation has a fluid and indistinct meaning to European tax experts. In their opinion the rates should fluctuate no more than 2 percent upwards or downwards. Although they admit that even this would unlikely to be reached in the foreseeable future.

Statements like this show that Bonn does want to see the EEC tackle the long-wanted harmonisation of its different national tax systems.

But, at the same time, if Bonn's proposed tax reforms do require the support of a VAT increase to 15 or 16 percent by the 1990s, then the EEC will already be in place as a convenient whipping boy.

But what does harmonisation of the European tax systems really mean? To the champions of the idea it means streamlining Europe's many different VAT systems.

The differences range between 12 per cent in Spain and Luxembourg to 22 and 23 per cent in Ireland and Denmark.

Yet these differences are not the sole causes of the problem. It's more often unevenly applied rates within national borders which create chaos.

West Germany for example has a standard rate of 14 per cent and a half rate of 7 per cent on certain items like specific foods and taxi fares, for example. The Italians have a normal rate of 18 per cent, with allowances on some goods of two or nine per cent, and of 38 per cent on certain luxury goods. The French have a similar rate on many goods. Belgium and Spain have also rates of up to between 25 and 33 per cent.

These figures would indicate that West Germany has low VAT and increasing it would not be painful.

But one must take into account Germany's trading tax, which pushes the tax load into the upper reaches. It also has one of the highest income-tax rates in

the world.

Continued on page 13

■ INDUSTRY

Daimler-Benz chief executive steps down as dissatisfaction grows

Werner Breitschwerdt has been sacked as chairman of Daimler-Benz. Nobody of course is talking about a sacking. Breitschwerdt has merely asked to be released from his contract, which runs to the end of next year.

Yet only days before, Breitschwerdt had told the *Frankfurter Allgemeine Zeitung* that not only was he aiming to have his contract renewed, but renewed on his own terms.

Professor Breitschwerdt was appointed head of the board in 1983 in succession to the late Gerhard Prinz. But doubts grew that this was the right appointment. The doubts have increased.

Alfred Herrhausen, the firm's supervisory board's chairman as well as joint chief executive of Deutsche Bank, Germany's largest, has long thought that Breitschwerdt's appointment was wrong.

Breitschwerdt is a highly skilled engineer. If Daimler-Benz had stayed with making cars, he might well have stayed longer at the helm. But the company has been diversifying: it took the remaining 50 per cent of engine makers MTU; then it took over aerospace firm Dornier; and then a majority in AEG. And with each step, the more obvious of his management shortcomings grew.

He was considered to lack strategic planning skills needed to integrate the new subsidiaries. To keep up appearances, he was appointed supervisory board chairman, but since last year, the

group has effectively been run by a committee chaired by Edzard Reuter. This spring Reuter was appointed vice-chairman of the board. It was a significant appointment. Reuter is the son of Ernst Reuter, the Social Democrat politician who was Mayor of West Berlin after the war. Edzard Reuter was in the running to succeed the late Gerhard Prinz in 1983, but he was, like his father, an SPD man, and that stood against him. Some people were unable to imagine a Social Democrat at the helm of one of Germany's blue-chip companies.

Now Reuter has been dealing direct with Dr Herrhausen and bypassing Professor Breitschwerdt. Even the process of diversification was carried out almost over the head of Breitschwerdt. Most of the negotiations were done by Reuter and another director.

This is the way it all happened: Daimler-Benz worker directors from all over Germany converged on Stuttgart in mid-July to prepare for a supervisory board (upper board in the two-board system) meeting convened at short notice by chairman Dr Herrhausen.

The meeting was held to herald the end of an era: Breitschwerdt's term as chairman of the board of directors (management board).

Dr Herrhausen had decided to play the part of Alexander the Great and sever the Gordian knot that has beset the management of the blue-chip company with the largest turnover in Germany.

Since last spring it has been plain as a pikestaff that trouble was brewing. At the 11 March supervisory board meeting (held, as it happens, a day after the story broke that Volkswagen had lost DM500m in foreign exchange dealings) Dr Herrhausen had Edzard Reuter appointed vice-chairman of the Daimler-Benz board.

Herr Reuter has long been Daimler-Benz director in charge of finances. But vice-chairman of the board? Daimler-Benz had never had one before.

The appointment was said at the time to have been made to "enhance management efficiency." But the writing was on the wall and Professor Breitschwerdt is now to go.

But first, Dr Herrhausen first had to clarify matters at Deutsche Bank, where his own predecessor as chief executive and Daimler-Benz board chairman, Wilfried Guth, had backed Professor Breitschwerdt in December 1983 after the unexpected death of Daimler-Benz chief executive Gerhard Prinz.

Herr Guth is now supervisory board chairman at Deutsche Bank, so Dr Herrhausen had first to consult his own watchdog and get him to agree to drop Breitschwerdt, whose appointment he had endorsed on mainly political grounds.

Back in 1983 Herr Reuter, a Social Democrat, was already in the running for chief executive. But Herr Guth simply couldn't visualise an SPD man at the helm of Germany's bluest of blue chip



It's all a matter of marks and pfennigs ... Brätschwerdt (left) and Reuter.

(Photo: Maucher)

companies. If the Stuttgart carmaker had stuck to making cars, Professor Breitschwerdt as a highly-skilled engineer could easily have stayed at the helm beyond his 60th birthday on 23 September. The Dornier takeover was prompted by disagreement among the heirs in what had been a family firm. AEG in contrast, who had to call in the receivers a few years ago, are well on the road to recovery.

So a Social Democrat is to take over at the helm of Daimler-Benz. Is this the "cultural revolution" Dr Herrhausen says a company needs every 15 to 20 years if it is to develop? Definitely not, where hopes and fears in respect of party-political affiliations are concerned.

Herr Reuter — cool, intelligent, an eghead — sees himself first and foremost as a company executive and uniformly complains of the heavy tax burden, in comparative terms, imposed on firms in the Federal Republic of Germany.

For some time he has been rumoured to be in line for the economic affairs and/or finance portfolio in a Social Democratic Bonn Cabinet, but the rumour probably amuses him more than flatters him.

Unlike many other Cabinet members he would undoubtedly know what he was talking about, but that alone is not sufficient qualification in Bonn, and he was never seriously considered the option.

His aim, although he has outwardly remained loyal — to the point of self-delusion — to Professor Breitschwerdt and to his predecessors Gerhard Prinz and Joachim Zahn, has always been to make it to the top at Daimler-Benz.

It is hard to envisage Reuter, a brilliant thinker and speaker, self-assured to the point of arrogance, agreeing to go along with the ploy Dr Herrhausen is reported by the Hamburg news magazine *Der Spiegel* to be considering.

Herr Reuter is said to be envisaged as a stopgap to pave the way for Helmut Werner, the 50-year-old chief executive of Continental, the tyre manufacturers.

Now Conti have taken over General Tire and Rubber, Herr Werner has reached the helm of an international tyre group. He is said to be in line for the Daimler-Benz board job in charge of materials.

One point may tell against Herr Werner at the Daimler-Benz supervisory board meeting. For months he has been fancied to take over as chief executive of Audi, the Volkswagen subsidiary, as chairman of the parent company and, now, as crown prince at Daimler-Benz.

Management history in Germany has often shown rumours of this kind to do a candidate more harm than good.

Kirgen Klotz

(Frankfurter Rundschau, 14 July 1987)

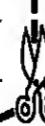
I am interested in real estate/investment advertising in Germany.

Please make me a quotation for "The Great Combination"

DIE WELT
UNABHÄNGIGE TAGESSZTUNG FÜR DEUTSCHLAND
WELT SONNTAG

Name/Firm: _____

Address: _____



Meteorological stations all over the world



supplied the data arranged in see-at-a-glance tables in these new reference works. They include details of air and water temperature, precipitation, humidity, sunshine, physical stress of climate, wind conditions and frequency of thunderstorms.

These figures compiled over the years are invaluable both for planning journeys to distant countries and for scientific research.

Basic facts and figures for every country in the world form a preface to the tables. The emphasis is on the country's natural statistics, on climate, population, trade and transport.

The guides are handy in size and flexibly bound, indispensable for daily use in commerce, industry and the travel trade.

Four volumes are available:
North and South America, 172 pp., DM 24.80;
Asia/Australia, 240 pp., DM 24.80;
Africa, 130 pp., DM 24.80;
Europe/USSR, 240 pp., DM 24.80

Look it up in Brockhaus

F. A. Brockhaus, Postfach 1709; D-6200 Wiesbaden 1

■ AVIATION

Airlines find training pilots jointly is safer, cheaper

RHEINISCHER MERKUR

Swissair and Lufthansa are in competition for passengers and air freight. But they cooperate on the training of pilots.

This joint approach has two advantages: it saves money and increases safety. The idea has been so successful that other airlines are taking a great interest in it.

The Futura schedule was jointly devised by Swissair and Lufthansa in 1982. It means greater safety in training because it is a concerted effort using combined resources to develop training methods.

Most European airlines have experimented for years but have been slow to devise suitable training routines; they used to rely mainly on former military pilots.

For years there were only two major airlines in non-communist Europe — Lufthansa and Alitalia — that ran pilot training facilities of their own.

The Swiss Aviation College is not, strictly speaking, a Swissair institution — although the airline has a major say in its activities.

Yet the Italians of all people are keen to team up with the Futura twosome as soon as possible, and they look like being followed by others.

SAS set up an aviation college two years ago. It is run as a civil aviation training facility but in reality is managed by the military and is largely modelled on the Lufthansa staff college in Bremen.

In Britain, after an eight-year break, a new civil aviation college has been set up by British Aerospace.

Air France trains its pilots at the government aviation college SFACT in Salmi-Yam, while KLM pilots are trained at the government aviation college and at a private college in Maastricht.

All these airlines are following the progress of the German-Swiss project with keen interest, especially as they share a problem faced by Lufthansa and Swissair.

It is that more pilots than ever are needed to man larger fleets, which in turn means hiring more trainees.

The Bremen college can select its annual intake of 180 odd trainee pilots from thousands of applicants. The Swiss aviation college, with an annual intake of 64 trainees, has a harder time of it.

Applicants must be in good health. They must technically gifted. Their reactions must be first-rate. They must also be fluent in German and English. That, oddly enough, poses problems in multilingual Switzerland.

In the 1970s, when only 30 to 40 pilots a year were needed, Swissair had to hire many German, Scandinavian, Dutch and American pilots, most of whom are now fully-fledged captains.

The situation has since improved.

The annual 64 trainees are more readily found. "Swiss educational standards have improved," says Paul Lüthi, Swissair's head of training.

Most trainees come from German-speaking Switzerland and between 20 and 30 per cent from the French-speaking cantons.

"We very seldom have trainees from Italian-speaking Switzerland," he says. "One or two a year at most, and sometimes not even that many."

Instructors agree. "This year we have more women trainees than Italian Swiss," they say.

German is, by the nature of things, the language of instruction at the Swiss aviation college. That makes collabora-



That down-to-earth feeling... In a flight simulator.

tion with Lufthansa easier — but not learning the trade for French- and Italian-speaking trainees.

They must, in effect, be trilingual if they are to qualify as Swissair pilots.

Safety first and reliability are the keynotes of flight training in Zürich. In 28 years Swiss-trained pilots have been involved in only three serious accidents.

Baumeister, who officially heads the training facility and is deputy head of the Zürich college, sees Futura evaluation as follows:

"We can now be sure that simulator training will achieve the same objectives as training in the air.

"I am confident we will one day be able to carry out satisfactory test and refresher course flights in the simulator — provided the authorities will accept the idea."

The practical consequences are self-evident. Simulator training saves money. It is safer and reduces environmental pollution.

"People have grown more keenly aware of the need for environmental protection. We can play our part with new training courses and facilities," Baumeister says.

"That only goes to show how beneficial modern technology can be."

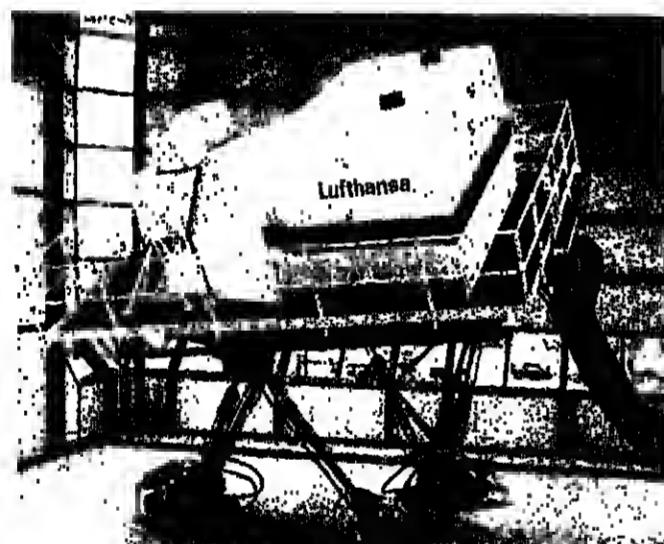
Baumeister, who regularly commutes between Zürich and Bremen, has no doubts about the success of cooperation between the two airlines.

"It couldn't be better," he says. "And when bottlenecks occur in training we are treated well — you might almost call it preferential treatment."

"We certainly aren't put at a disadvantage. Our trainees get a very fair card of the whip."

Karl Morgenstern

(Rheinischer Merkur/Horst und Volker, 11 July 1987)



Rough weather within four walls... A Lufthansa flight simulator.

(Photos: Lufthansa)

220,000 suppliers of 75,000 products 'made in Germany'

Who manufactures what?

Find suppliers and products, send for quotations, compare prices, track down specific sources of supply, cut costs by buying at lower prices.

This is a reference work every buying department should have at the ready.

Easy to use, just like an encyclopaedia:

Products, including 9,000 trademarks, are arranged alphabetically, complete with

Manufacturer's or supplier's address.

A telephone number is listed for each supplier.

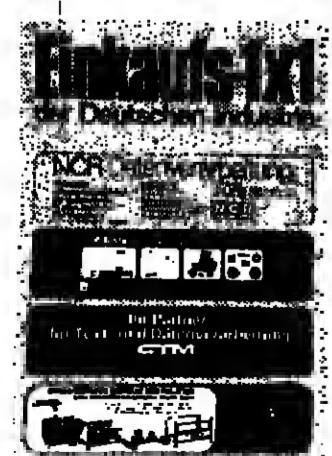
1,400 pages A4, indexed in English and French.

Price: DM98.44 post free in Germany, DM107 cif abroad. Air mail extra.

Order direct from us or from your regular bookseller.



DAV-Verlagshaus
Postfach 11 03 20
D-6100 Darmstadt
Federal Republic of Germany
Tel.: (0 61 51) 3 91-0



No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

■ TRANSPORT

Solar-powered vehicles are still in the shade, but . . .

DEUTSCHES ALLGEMEINES SONNTAGSBLATT

Many motorists and fans of high-powered Formula 1 racing turn up their noses at solar-powered cars. They see solar panels, collectors and batteries as little more than a hobby for cranks and crackpots. And they're right — up to a point.

When solarmobiles are exhibited at car shows or the annual Tour de Sol race is held, the cars look more like Heath Robinson contraptions than the shape of transport to come.

Many are not readily identifiable as motor vehicles. They look more like a combination of pushbike, rickshaw, tricycle and soapbox.

Yet solar motorists go in far more than a mere hobby. Solar power plays an increasing part in the debate on future modes of transport. Many experts see solar-powered battery-run vehicles as ideally suited for local traffic.

They are inexpensive to run, waste no fuel and do little or no damage by way of pollution.

It may be years before dreams come true and they are a practical proposition, but developments are making headway by leaps and bounds.

"We can already work on the assumption that solar cars will be used in everyday life," says an optimistic Urs Muntwyler. He should know. As manager of the Tour de Sol he has followed their progress for years.

His optimism is based on the advantages solar cars have over conventional vehicles. They emit no exhaust and are virtually noiseless. Their electric motors also use energy more efficiently than conventional combustion engines.

The ordinary car engine wastes about 80 per cent of the energy in motor fuel as excess heat. Good electric motors convert roughly 80 per cent of their energy into motion.

Many problems remain to be solved before the solar car runs off the assembly-line. Energy supplies are one drawback. Rooftop solar panels are not really much use — even though they are obligatory for vehicles that take part in the Tour de Sol.

"Even if the sun were to shine throughout the race," Muntwyler says, "the solar cells on the car roof would not generate more than about 10 per cent of the energy needed to power the car."

The remainder comes from a built-in battery that is recharged as the car stands in the sun. Cars have to be stationary and recharging for about 10 hours to store enough power to travel about 100km.

In ordinary traffic that wouldn't do. Cars are usually parked either in the shade or in underground garages. So many fans are busy planning solar filling stations of their own.

They fix their solar panels somewhere near home where they can bask in the sunlight to recharge the batteries.

Professor Naunin was recently elected president of the German Electric Road Transport Society (DGES). His optimism is not shared by Professor Rothengatter of the German Institute for Economic Research (DIW), Berlin.

A fully-charged lightweight battery will only take the car 50km or so, but more powerful batteries are heavier, taking more energy to move.

Heavyweights are neither faster nor can they cover greater distances. The sodium sulphur battery devised mainly by Brown, Boveri & Cie, the engineering company, may be the breakthrough.

This battery, when fully laden, can cover 250km, accelerate to 100km/h from a standing start in seven seconds and reach a top speed of 130km/h.

These are performance statistics that compare well with those of conventional compact cars, but even though the new battery is much more powerful — and cheaper to mass produce — it still weighs about 265kg, or 583lb.

Many are not readily identifiable as motor vehicles. They look more like a combination of pushbike, rickshaw, tricycle and soapbox.

Yet solar motorists go in far more than a mere hobby. Solar power plays an increasing part in the debate on future modes of transport. Many experts see solar-powered battery-run vehicles as ideally suited for local traffic.

They are inexpensive to run, waste no fuel and do little or no damage by way of pollution.

It may be years before dreams come true and they are a practical proposition, but developments are making headway by leaps and bounds.

"As battery expenditure weighs heavily on running costs yet the widest feasible radius is essential, the vehicle must be light in weight and aerodynamic in design so as to run on as little power as possible."

Unlike many other experts who have high hopes of battery-powered conventional cars, he is convinced from the outset that the vehicle of the future for short distances will be midway between a bicycle and a motor-car.

"We can already work on the assumption that solar cars will be used in everyday life," says an optimistic Urs Muntwyler. He should know. As manager of the Tour de Sol he has followed their progress for years.

Most headway in this direction has been made by a group sponsored by Megasol, the Swiss consumer retailers, and Autophoton, the telecom company.



The shape of things to come? Or of something else?

(Photo: Kessler)

Their prototype is extremely light in weight, seats two, has a range of 150km and reaches a top speed of 130km/h.

It will be some years before this is likely to happen. Manufacturers are still reluctant to invest. Carmakers are waiting for the batteries. Battery manufacturers are waiting for carmakers to give them the go-ahead.

Both can only earn profits from mass production. Jumping the gun could cost millions. That is why Montwyler is banking on publicity — car shows, races and the like.

Competition encourages inventors to design increasingly powerful models; they alone can hope to make solar power competitive as a means of propulsion.

Wolfgang Kesseler

(Deutsches Allgemeines Sonntagsblatt, Hamburg, 5 July 1987)

... batteries are becoming both lighter and more powerful

Battery-powered cars are much simpler and quieter and cleaner than conventional internal-combustion-powered cars.

But so far no one has been able to produce a battery powerful enough to drive heavier vehicles fast enough and without involving cumbersome recharging.

But researchers are beginning to get results. An aluminium-air-cell battery is one. It involves electrodes immersed in an electrolyte and the use of a catalyst to extract electrical energy from aluminium. This battery does not need to be recharged. But, as this article in the *Süddeutsche Zeitung* explains, there is still an awful lot of scepticism about battery cars.

Battery-powered cars seem unlikely to compete with conventional motor-cars no matter how much hard work is invested in research and development. Combustion-engined cars are cheaper to run.

Modern technology has made the battery-powered car reliable, but even its supporters admit that its range is so limited that it can never replace the conventional motor-car.

Yet they are still convinced it will gain a foothold in limited market sectors. Professor Naunin added that battery-powered cars were emission-free and virtually noiseless.

Their primary energy consumption is

to blame for less emission (static emission from power station smokestacks)

than conventional motor vehicles.

Professor Legat of the Federal Transport Ministry said battery-powered cars would not fully offset the conventional variety as consumers of primary energy until all cars driven in the European Community were battery-run.

Professor Naunin said that existing power station capacity could be used to power roughly five million battery-run cars for which both the technology and the assembly-line capacity was available.

He reckoned market demand would total roughly 630,000 if battery-powered cars sold at DM16,000 in the Federal

Republic, up against 243,000 at DM210,000.

Lending carmakers are unimpressed by either figure. They have no hopes of making a profit on less than 50,000 to 100,000 cars a year at prices over DM20,000.

Development of conventional cars makes the outlook for battery-powered vehicles even gloomier. New cars use less fuel, cause less pollution and cost less to run — so much so that they hold the edge even in limited market sectors.

They will continue to do so even if the sodium-sulphur high-energy battery is marketed by 1990, as stated by BBC's Dr Birnbreiter. This battery will boost

the range of a four-seater car used in city traffic from 50km to 200km, with a top cruising speed of 120km/h (75mph) as against 90km/h (56mph).

But battery-powered cars will still be losers in economic terms and, as Herr Kiehne of the battery section of the Electrical Engineering Association put it, people just aren't prepared to take short-range battery-powered cars seriously.

It remained to be seen, he said, whether the sodium-sulphur battery will result in a breakthrough to mass production of battery-powered vehicles.

Professor Rothengatter disagreed. He was sure there would be no market for battery-powered cars by the turn of the century — unless one was politically created.

(*Süddeutsche Zeitung*, Munich, 3 July 1987)

■ THE ARTS

The new Sally is Bowling them over in the aisles

Hamburger Abendblatt

Ute, you're wonderful!" said Liza Minnelli at Ute Lemper's Paris premiere of *Cabaret*. "This German girl is a dream," said an appreciative French President François Mitterrand.

Actress, dancer and singer Ute Lemper, from Münster in Westphalia, is the discovery of the year in the French capital, where she has won the Molière, France's foremost stage award.

Thanking the audience at the award ceremony in her host French, she replied: "My discovery of the year has been Paris." Thus earned her a standing ovation from a full house of 2,000 people.

Since mid-February she has starred nightly at the Magogor Théâtre in Jérôme Savary's smash hit production of the musical.

In the record-breaking film version of *Cabaret* Liza Minnelli starred as dancer Sally Bowles at the Berlin Kit Kat Club in the early 1930s, as re-told by Christopher Isherwood in his novel *Good-bye to Berlin*.

Ute Lemper as Sally Bowles is now playing to full houses in Paris, where the musical's run has been extended from the end of May to the end of February next year. Not since Romy Schneider has a German actress so delighted the French.

She is a banker's daughter, blonde, 1.73m (5ft 8in) and a bantamweight 53kg (116lb).

She was completely unknown when she was hired by Jérôme Savary, the founder of the renowned Grand Magic Circus, to play Sally Bowles and starred alongside Nicole Heesters and Ingrid Caven in the Kurt Weill Show.

"Liza Minnelli totally took over the role and made Sally Bowles immortal on the screen. So as I am nothing like Liza Minnelli I was able to work out something entirely different, an approach of my own, for the part."

Ute Lemper has taken Paris by storm. The critics outdid each other in paens of praise. "A new star is born. Ute is a dream. A bundle of energy, charm and talent. Jérôme Savary's new bombshell is the real Big Bang."

"When Ute sings, her voice turns your head. When she dances her seemingly endless legs simply bowl you over. That is enough to lay Paris at her feet," the critics wrote.

"Willkommen, bienvenue, welcome to Cabaret" is a song Ute heard at least 1,000 times on her parents' record-player as a 13-year-old back home in Münster.

"I sang to it, dancing and miming Sally. I felt an affinity to her. How I would have liked to get out and about like she did," she recalls. Her teenage dream has now been fulfilled.

In the quest for renown and reputation she was active even as a youngster. She grew up in middle-class home with her father, mother and a younger brother who is now studying architecture at Münster University.

"I was made to take piano lessons at the age of five," she says. She attended ballet classes and was seen on the stage of the city's Stadttheater as a schoolgirl.

At 15 she performed with a rock

band. "Child, you're going to scream your voice to ruins," her mother (who would have liked to be a singer herself) told her.

She insisted on Ute taking proper singing lessons. "I spent my holidays at the Summer Dance Academy in Cologne rather than on the Côte d'Azur."

After passing her university entrance exam with flying colours she decided that life at home, a good Catholic home, was too restricted. She moved out and into a shared flat, earning her living from gigs with a rock band.

Eventually she left for Vienna and an audition for the Max Reinhardt Academy of Drama. "I really spent 18 months there in an attic learning parts," she proudly says.

Then Andrew Lloyd Webber's *Cats* came to Vienna. Ute and 600 others applied for a part. She danced the way we know it from *Chorus Line* and was given the part of Bombalurina.

She stayed with the musical for a year on a salary of DM2,000 a month. "After 300 shows, sometimes twice a day, I was worn out. I used to cry on stage in sheer exhaustion."

Yet she now knows her work alongside American professionals was well worthwhile.

Ute Lemper, admired by German viewers as Peggy Brinkley in the TV serial *Das Erbe der Guldenburgs*, conveys an impression of amazing self-assurance. She is just 24 but looks older.

"I'm a loner," she says. "From an early age I have made all my own decisions. That takes courage. It makes a mature woman of you."

From Vienna she went to Berlin, where she played in the musical *Peter Pan* at the Theater des Westens and starred alongside Nicole Heesters and Ingrid Caven in the Kurt Weill Show.

She then wanted to work in straight drama. "You must never succumb to routine." So she applied in spring 1985 to Ivan Nagel, general manager of the Stuttgart State Theater, for a job.

He referred her to Jérôme Savary, who hired her on the spot for his *Bye Bye Show Biz*. Tired of musicals though she was after a year of *Cats*, she says:

"Jérôme infected me with the musical

virus." And she didn't hesitate for a moment when Savary took her with him to Lyon to rehearse *Cabaret*.

A tour through the French provinces was followed by 80 shows in Düsseldorf, where she was hailed by German critics, but she did not really come into her own until the show moved to Paris.

She lives in a small two-room apartment below Montmartre and says: "I'd love to see all the Paris museums myself at last, but I'm still bowled over by success."

New engagements are lined up, including her first major one-woman show at the Sporting Club in Minne in 18 August with a programme of musical songs.

An LP is to go on sale this autumn and in September she will star in two concerts in New York.

"I am then to star in a film alongside Klaus Maria Brandauer, I haven't signed the contract yet. Things are moving too fast. I hardly know where I am."

Yet she enjoys the publicity. "But I can rule out any idea of a private life. I should like to have children at some stage. But not just yet."

"I haven't the time and my career must come first. You get nowhere without making some sacrifice or other. Show business is a labour of Sisyphus."

Constance Knitter/SAD
(Hamburger Abendblatt, 4 July 1987)

One fine day in the nightlife of Leonard Bernstein

Leonard Bernstein has been awarded the Grand Cross of the Federal Order of Merit. It was presented by Schleswig-Holstein's Prime Minister, Uwe Barschel, who had to get out of a hospital bed for the occasion. Herr Barschel has been in hospital since being involved in a light-aircraft crash several weeks ago. Mr Bernstein was in Lübeck for his third concert of the Schleswig-Holstein music festival season. Inga Gröbe of *Die Welt* gives her impression of a day tour in Germany.

Leonard Bernstein curses under his breath as he trips over a cable and takes his seat in the chair behind the orchestra. It is Friday evening in the concert hall of the Deutsches Haus in Flensburg.

The applause continues. Bernstein enhances his pupils. He is clearly exhausted and beckons the first violin. That is the signal for the orchestra to call it a day too.

Relaxed and in a genial mood, the inevitable cigarette in the corner of his mouth, Mr Bernstein receives visitors in his dressing room, wearing a bathrobe befitting a champion.

From Flensburg he is off to Glückstadt, where he has a dinner date with festival sponsor Rolf Schaudt.

On Saturday the jubilation continues more roof-raising as the orchestra plays the same programme in an audience of 5,000 in the Hubertus Hall in Neumünster.

They include former Federal Chancellor Helmut Schmidt and his wife, who chat with the maestro in his flower-packed dressing room as Lennie's personal assistant, Craig, looks on.

After the concert the VIPs head for separate receptions while Mr Bernstein in his dressing room enthuses about the strength of spring and of Stravinsky's score. "It's dicey for me," he says. Towards midnight he leaves for Emden and his next festival.

An audience of roughly 2,000 is in the enormous old barn of the manor estate for a musical miscellany including Liszt, Ringelmann and cabaret.

The maestro arrives almost unnoticed via a side door. "I'm dying of hunger," he says — and is disappointed. "Sit and listen to more music?" he asks.

He first heads for the hippodrome

Continued on page 11



Baton charge... Bernstein (right) embraces Barschel in award ceremony.
(Photo: dpa)



You ask me what makes the world go round?... Ute Lemper as Sally Bowles.
(Photo: dpa)

■ EXHIBITIONS

Nine thousand years of Cyprian culture plus a goddess

Hannoversche Allgemeine

The Obersee-Museum in Bremen has mounted an exhibition called Aphrodite's sisters and Christian Cyprus: Nine thousand years of Cyprian culture.

This is the first time a museum has put on a historical synopsis dealing with the extraordinary role played by Cyprus in the formation of European culture.

Museum assistant Alexandros Pitsiatis said, "the museum decided to make the veneration of the goddess Aphrodite the theme."

There are more than 400 priceless exhibits on show, most on loan from the Cyprus museum in Nicosia.

Many other museums have also contributed: the Medehausmuseum in Stockholms; the Baden state museum; the Pergamon museum in East Berlin; and the Louvre, in Paris.

Bremen was also able to acquire some free-field ceramics, which are only found in Cyprus. In about 600 BC, artists worked wonders on white undecorated convex ceramic vases and even today these works strike the viewer with a modicum of vividness.

The exhibition is enriched by gold jewelry from a private collector from Amsterdam. Herbert Ganßmayr, the director of the Obersee-Museum, was enthusiastic. The jewelry, he said, "is unique in Europe and we are delighted to have it."

One may well ask why so much attention is being paid to Aphrodite. The answer is that, according to legend, the goddess originates from Cyprus. And deities like her have been worshipped throughout history as the embodiment of fertility, of the origin of life and culture.

Later in history foreign powers invaded the island because of its geographical position between East and West. This was to determine its historical destiny. The island was to blossom into a productive cross-fertilization of cultures.

The Greek poet Hesiod, who was born in Askré about 700 B.C., passed on the myth of Aphrodite to us in his poem *Theogony*.

He described how the goddess was born in the form of a sea, issuing from a dismembered limb of her father, Uranus, who was floating in the sea. Cypris built a shrine to her in the city of Paphos, not far from the bay where legend has it that she came into being. The natives held annual orgies in her honour. She was after all the protectress of prostitution just as much as she was of marriage.

The natives of Paphos in fact been worshipping a goddess of fertility as early as 3,000 BC. It was during this period that small beautiful cruetiary idols were made of women with long necks, outstretched arms, bent knees and the usual feminine curves.

The themes of the earth's fertility and the reproductive capacity of women, even in this day and age, taken together still exercise a mystical fascination.

The Greeks, who arrived in Cyprus

about 1,400 BC, incorporated the myths of the native religion into their own. And made the cult of Aphrodite out of it.

With the coming of Christianity this was transformed into mandatory. Up to the last century one could still visit a church in Paphos called the "Virgin Aphrodite".

There are more than 400 priceless exhibits on show, most on loan from the Cyprus museum in Nicosia.

Many other museums have also contributed: the Medehausmuseum in Stockholms; the Baden state museum; the Pergamon museum in East Berlin; and the Louvre, in Paris.

Bremen was also able to acquire some free-field ceramics, which are only found in Cyprus. In about 600 BC, artists worked wonders on white undecorated convex ceramic vases and even today these works strike the viewer with a modicum of vividness.

The exhibition is enriched by gold jewelry from a private collector from Amsterdam. Herbert Ganßmayr, the director of the Obersee-Museum, was enthusiastic. The jewelry, he said, "is unique in Europe and we are delighted to have it."

One may well ask why so much attention is being paid to Aphrodite. The answer is that, according to legend, the goddess originates from Cyprus. And deities like her have been worshipped throughout history as the embodiment of fertility, of the origin of life and culture.

Later in history foreign powers invaded the island because of its geographical position between East and West. This was to determine its historical destiny. The island was to blossom into a productive cross-fertilization of cultures.

The Greek poet Hesiod, who was born in Askré about 700 B.C., passed on the myth of Aphrodite to us in his poem *Theogony*.

He described how the goddess was born in the form of a sea, issuing from a dismembered limb of her father, Uranus, who was floating in the sea. Cypris built a shrine to her in the city of Paphos, not far from the bay where legend has it that she came into being. The natives held annual orgies in her honour. She was after all the protectress of prostitution just as much as she was of marriage.

The natives of Paphos in fact been worshipping a goddess of fertility as early as 3,000 BC. It was during this period that small beautiful cruetiary idols were made of women with long necks, outstretched arms, bent knees and the usual feminine curves.

The themes of the earth's fertility and the reproductive capacity of women, even in this day and age, taken together still exercise a mystical fascination.

The Greeks, who arrived in Cyprus

still remained the artistic ideal. The Romans, who ruled Cyprus for 400 years, preferred to portray more contemporary women. They displayed a profane lust for the beautiful and the erotic in their art. They decorated the floors of their villas with skillfully put together mosaics.

One can see a copy of Leda erotically showing off her back in the museums colonnaded court of a Roman villa.

The most valuable treasures are six Byzantine icons of which the oldest is a portrait of John the Baptist from 12,000 AD. Among the works of the sculptors Agiro and the painter Diamantis and Skotinos we meet Aphrodite once again as a symbol of humanity.

The icons exude a charm through their plastic contours, transparent colours and the naturalness of their expressions.

Christoph Sodenmaier
(Hannoversche Allgemeine, 8 July 1987)



Roman mosaic from Cyprus. Circa 2nd C BC.
(Photo: Catalogue)

The Etruscans come north with their treasures

When Etruscan treasures were shown for the first time in Germany, in Cologne 30 years ago, they created a sensation. This relatively unknown culture became popular overnight.

Now it's Hamburg's turn to show the Etruscan treasures from the archaeological museum in Florence. The aim is to see if the exhibition makes the rounds to Hamburg again.

It consists mostly of gold jewelry like delicately engraved armbands, hairpins, earrings and golden buttons with filigree designs like miniature suns.

The exhibition is concentrating on 150 years of Etruscan art from late eighth and seventh centuries BC.

This period was the genesis of an upper-class, which together with the metal deposits of the island of Elba grew and developed trading links with the orient.

It's exciting to make out the Etruscan faces at this exhibition. The high-elevated portraits of the Etruscans is best illustrated by a man's head made of ivory about the size of a cherry.

The bearded man with almond-shaped eyes, aquiline mouth and the large flat nose was found in Marsili.

Then there is a life-sized sculpture from Vettulon, an impressive piece which shows a striking face framed by two thick plaited hair.

Around her neck is a chain of half-moons and around her waist a belt with a design of two-winged cats.

An ivory desk is a particularly precious piece. The alphabet has been inscribed, right to left, along its upper edges. The aim was to act as a memory aid to the writer. Evidence from the Marsili cemetery shows that the art of writing was highly esteemed.

The military nature of the Etruscans is also shown. Among the exhibits are chariots, helmets, leg protectors, breast plates and horse equipment. A warrior's weapons were placed with him in the grave.

The Italian tourist board can take credit for the exhibition coming about at all. It has been largely financed by them and they produced the opulent catalogue.

Erika Breitenbach
(Hannoversche Allgemeine, 1

■ THE ENVIRONMENT

Balloon mission will probe mystery of holes in stratosphere's ozone layer

Staff at the Max Planck Nuclear Physics Institute in Heidelberg are grappling with the problem of the missing ozone in the stratosphere.

They have filled a lightweight metal tube about the size of a children's mercury-glass thermometer with electronic equipment.

It has been shipped to France where it will be launched by balloon into the stratosphere to measure trace gases for CNES, the space research establishment.

The French balloon mission is an experiment. Its payload includes measuring device lately developed by the Heidelberg physicists in a bid to solve the mystery of the missing ozone.

A hole in the ozone layer over the Antarctic (and now over the Arctic too) is growing larger by the year. The Heidelberg physicists' current reactor looks much like a twin-engined rocket.

At altitudes of between 10 and 30 kilometres it ingests aerosol droplets from the air and vaporises them.

The steam is then analysed in a chemical ionisation mass spectrometer. The French mission is designed merely to find out whether the equipment works. Full-scale operations are scheduled for next winter.

In February 1988 an international team of European scientists will fly balloons over the North Pole. Their Arctic stratosphere ozone measuring experiment will go by the name of Cheops II.

Cheops I peaked last February when over 50 scientists joined forces at short notice.

They were from the Heidelberg Max Planck Institute, the Jülich nuclear research establishment, the Free University of Berlin, the University of Stockholm, the German Aerospace Research Establishment (DFVLR), the CNES and Esa, the European Space Agency.

Three balloons were launched from the Esrange Esn missile range in Lapland, 100km north of Kiruna in northern Sweden.

A research missile was also launched and an aircraft full of measuring equipment flew seven missions.

The experiment confirmed a theory arrived at by two German scientists early this year to account for the missing ozone.

They are Frank Arnold of Heidelberg, a cosmic physicist who normally deals with distant planets, and Paul J. Crutzen, a Mainz chemistry professor.

They underscored the old surmise that halogenised hydrocarbons, including fluorochlorohydrocarbons, are not only fine spray gases, coolants and solvents but also most effective ozone killers.

The two German scientists' complex theory is based on the assumption that in the Arctic (and Antarctic) winter, when temperatures in the stratosphere fall below -70°C, nitric acid gas forms condensation like steam on a cold kitchen window-pane.

Nitric acid gas is an important natural feature of the upper atmosphere. If it is missing the chemical balance of the air is upset.

Minute quantities of halogenised hydrocarbons may then act as a catalyst and break down substantial amounts of ozone.

The result is that the Earth's natural atmospheric "sunglasses" no longer work and ultraviolet radiation penetrates the stratosphere.

It heightens the risk of skin cancer,

STUTTGARTER ZEITUNG

smuts plant and microorganism growth and contributes toward the "greenhouse effect" that threatens to change the climate.

Cheops I underpinned this theory, but an international gathering of ozone scientists failed this spring to agree on an explanation for the phenomenon.

While American scientists take a further look, with a heavy technical analysis, at the ozone hole over the South Pole next winter, European Cheops II researchers will try to solve the problem with experiments over the more readily accessible North Pole.

Conclusive or not, the United States favours freezing emission at 1986 levels in the short term and reducing it by up to 95 per cent in the longer term.

The European Community in contrast has slammed on the brakes. Its member-governments have been unable to agree on the joint wording of a protocol to enable the 1985 Vienna agreement on protection of the ozone layer to come into force.

Their explanation is that warm, low-

ozone air layers rise in the polar spring, simply displacing the ozone.

What this fails to explain is why the ozone hole has grown steadily larger since 1960 and ever faster since 1980.

Early this year Professor Crutzen said the ozone layer between 10 and 20km over the South Pole had almost entirely vanished — over an area the size of the United States.

The scientific dispute might be of no further concern were it not for the disastrous political consequences.

In the debate on an international agreement to protect the ozone layer a number of governments urged on by leading manufacturers of halogenated hydrocarbons, have stressed the point that the case against spraycan gas is far from conclusive.

Frank Arnold, like most fellow-scientists, feels most unhappy with the political debate.

He wonders what degree of certainty is necessary before action is taken. "My personal feeling is that we should do something," he says. "I wouldn't like us to have to admit afterwards to having made a tragic mistake."

Rainer Kötting
(Stuttgarter Zeitung, 3 July 1987)

Rubbish, says consumer group about spraycan gas defence

Fifty two out of 53 hairspray and deodorant cans in a test were found to use fluorochlorohydrocarbon spray gas according to the April issue of *Öko-Test* magazine.

The evidence that fluorine spray gases are pinching holes in the ozone layer high in the earth's atmosphere is not conclusive, but the report galvanised the Chemical Industry Association into a rearguard action.

British and French manufacturers did nothing, as usual, while German industry responded to growing public pressure by deciding to gradually phase out spray gas but not, or so the Environment Ministry says, for freezers and air conditioning units.

"If fluorochlorohydrocarbons were no longer available," says the Ministry's Claudia Conrad, "we could scrap refrigerators entirely."

If this is true, and there is no acceptable alternative to fluorine-based hydrocarbons for use in coolants and medicinal and technical sprays, then international agreement must at least be reached as soon as possible on regulations governing the remaining 85 per cent.

National interests naturally clash. Assuming a UN Environment Programme conference achieves results in October, the outcome seems unlikely to amount to more than world output being halved by the turn of the century.

Yet the Max Planck Chemistry Institute, Mainz, says that even if an immediate ban were imposed the atmosphere would take 80 years to revert to the state it was in in the 1920s before fluorine-based spray gases were first used.

Conservationists are likely to find a legal survey commissioned by the chemical and cosmetics industry associations in June 1986 even more problematic than the use of spray gas.

Fritz Ossenbühl, the Bonn law professor and author of the report, argues that official recommendations on environmental A1 goods are in breach of the fundamental right of free enterprise.

Even if it were banned from hair spray and deodorant, car paint cans and stove cleaner, the fluorochlorohydrocarbon problem would still exist.

Britain, France and Italy are the main slowcoachers. German manufacturers, of which Hoechst and Kahlte are the largest, said in May they are prepared to dispense voluntarily with halogenated hydrocarbons in spraycan gas by 1990.

Exceptions are to be allowed in individual instances where a satisfactory alternative is not yet available.

An April 1987 European Community draft proposes freezing halogenated hydrocarbon production at the 1986 level within two years and reducing domestic output and imports by 20 per cent within six years.

This is even though scientists are agreed that not even a total ban on halogenated hydrocarbon emission would end the effect on the ozone layer; spraycan gas rises very slowly to stratospheric altitudes.

What is sprayed or condensed today may not start to wreak havoc for decades.

The European Community countries plan to sign a final version of the protocol in September. A September conference in Montreal will also deal with protection of the ozone layer.

Conclusive or not, the United States favours freezing emission at 1986 levels in the short term and reducing it by up to 95 per cent in the longer term.

The European Community in contrast has slammed on the brakes. Its member-governments have been unable to agree on the joint wording of a protocol to enable the 1985 Vienna agreement on protection of the ozone layer to come into force.

Rainer Kötting
(Stuttgarter Zeitung, 3 July 1987)

Neither in America nor in Germany is any mention made of other products in which it is used. Half the quantity that finds its way into the atmosphere comes from latex foam, air conditioning and freezer coolant and solvents.

That is why, according to the Federal Environmental Protection Agency, Berlin, output in the European Community increased from over 320,000 tonnes in 1981 by a further four per cent in 1985.

There may be alternatives for use as spray gas but not, or so the Environment Ministry says, for freezers and air conditioning units.

"If fluorochlorohydrocarbons were no longer available," says the Ministry's Claudia Conrad, "we could scrap refrigerators entirely."

If this is true, and there is no acceptable alternative to fluorine-based hydrocarbons for use in coolants and medicinal and technical sprays, then international agreement must at least be reached as soon as possible on regulations governing the remaining 85 per cent.

National interests naturally clash. Assuming a UN Environment Programme conference achieves results in October, the outcome seems unlikely to amount to more than world output being halved by the turn of the century.

Yet the Max Planck Chemistry Institute, Mainz, says that even if an immediate ban were imposed the atmosphere would take 80 years to revert to the state it was in in the 1920s before fluorine-based spray gases were first used.

Conservationists are likely to find a legal survey commissioned by the chemical and cosmetics industry associations in June 1986 even more problematic than the use of spray gas.

Fritz Ossenbühl, the Bonn law professor and author of the report, argues that official recommendations on environmental A1 goods are in breach of the fundamental right of free enterprise.

Even if it were banned from hair spray and deodorant, car paint cans and stove cleaner, the fluorochlorohydrocarbon problem would still exist.

Continued on page 16

■ MEDICINE

Public fear of radioactivity 'inhibiting nuclear diagnosis and research'

Frankfurter Rundschau

Fear of anything to do with radiation and radioactive contamination was so widespread that public opinion was opposed to nuclear medicine, Roslyn S. Yalow told Nobel laureates at this year's Lindau conference.

Professor Yalow, an American, said this was bad. Radioactivity and radiation were important.

It would be "tragic if panic-stricken fear of radiation were to lead to us no longer being able to benefit from the advantages."

Fellow-American Allan M. Cormack dealt at Lindau with a radiation treatment problem that was extremely interesting from a clinical viewpoint.

Professor Cormack shared the 1979 Nobel medicine prize with Britain's Godfrey Newbold Hounsfield for developing computer tomography.

This technique, an improvement on the original X-ray, has — like radioimmunoassay — been quick to gain medical acceptance.

Computer tomography enables the doctor to look inside the patient's body and see for himself any pathological changes.

These pictures it produces are invaluable, supplying an abundance of information not otherwise available.

The technique uses X-rays, and although radiation exposure has been greatly reduced as technology has progressed, the risk cannot entirely be eliminated.

In recent years Professor Cormack has repeatedly concentrated on reducing the radiation risk. At Lindau he gave an interesting outline of his work, which is by no means limited to improving diagnostic equipment.

Numerous complaints can now be diagnosed long before their actual outbreak. Early treatment is of estimable benefit in treating numerous ailments.

Radiation plays a key role in cancer therapy. It affects not only the diseased cells but also healthy tissue doctors are keen to preserve at all costs.

In the United States, he says — and others agree — there is a 50-per-cent chance of a disaster.

Ionised radiation has long been used to treat cancer because it kills fast-reproducing cells faster than healthy ones.

Radiation therapy mainly uses heavy ions, but as they could only be generated at great expense in particle accelerators 95 per cent of patients would continue to be given X-ray treatment in the next 20 years, Professor Cormack said.

X-ray treatment still poses problems even though it was a long-established technique.

Rotation therapy, the most widespread

treatment, regards the human body as an idealised cylindrical or spherical object.

Twin rays are played round the patient's body in opposite directions, thereby ensuring that the malignant tumour, assumed to be spherical in shape, is subjected to a constant dose of radiation, exposing healthy tissue to a lower dose.

Patients are not, of course, exactly cylindrical or spherical in shape. Tumours, for that matter, are as a rule neither spherical nor exactly in the middle of the cylinder or sphere.

So what radiation dose is the patient best given? Ought it to be as low as possible for the sake of the healthy tissue?

Or can a healthy organ half-sacrifice to ensure that another organ remains operational? Ought, for that matter, the radiation dose to be identical for both organs?

These and many other issues came under scrutiny by Nobel laureates in Professor Cormack's working party.

Even if, as a result of their work, the radiation hazard might be reduced, medicine would still not be able to dispense entirely with radiation therapy.

Computer tomography enables the doctor to look inside the patient's body and see for himself any pathological changes.

She had harnessed these processes, used to trace, identify and destroy substances alien to the body, to quantify interesting biological substances in a test-tube.

The technique is used in thousands of laboratories all over the world to identify hundreds of substances in the blood and in other body fluids.

Numerous complaints can now be diagnosed long before their actual outbreak. Early treatment is of estimable benefit in treating numerous ailments.

Radiation therapy plays a key role in cancer therapy. It affects not only the diseased cells but also healthy tissue doctors are keen to preserve at all costs.

In the United States, he says — and others agree — there is a 50-per-cent chance of a disaster.

Atomic energy as such, he said, was neither good nor bad. It could be both harmful and beneficial.

ORDER FORM

I/IWa hereby subscribe to THE GERMAN TRIBUNE until further notice at the following rates (postage included):

Six months Deutsches Mark 23.00
Twelve months Deutsches Mark 45.00
(Underline whatever applicable)

Mrs / Mr / Mrs / Miss

Name

Praesalion

Street

City

Country

Zip Code

Please return the completed order form to:
THE GERMAN TRIBUNE · FRIEDRICH REINECKE VERLAG GMBH
3-4 Hartwicustrasse, D-2000 Hamburg 76 · Federal Republic of Germany
15 July 1987

For thousands of patients' sake it would be irresponsible to drastically reduce the medical use of radioactivity on account of panic-stricken anxiety.

The cause of this fear of radiation was, Professor Yalow said, inaccurate information about the long-term consequences of Hiroshima and Nagasaki.

Scientists who had dealt with the nuclear fallout had discovered that only about 250 of the 82,000 survivors, each of whom had been exposed to an average 25 rems, or units of radiation dosage, had died of cancer due to the radiation.

This figure was less than six per cent of the 4,500 cancer deaths by 1978 due to other causes.

As the number of people evacuated from the Chernobyl area and their radiation exposure were similar to Hiroshima and Nagasaki, the Japanese statistics are probably the highest conceivable figures for radiation-induced cancer.

As the Soviet evacuees were exposed to their radiation dosage over a matter of hours (rather than in a single moment) their higher incidence of cancer over the next 35 years may be expected to be less than six per cent of cancer deaths due to natural causes.

Professor Yalow left no doubt that changes in personal habits, such as smoking, would influence cancer statistics much more than Chernobyl.

Konrad Müller-Christianen
(Frankfurter Rundschau, 4 July 1987)

25 per

■ HORIZONS

Beyond the flames of the stake, witches are still riding at full throttle

Summer 1570: Elisabeth Schmidt from Altheim lay in chains. Witnesses say that on Walpurgis night, she put a pin on the cattle in the field. (Walpurgis night is the eve of the first of May when witches ride on broomsticks and he-goats to meet the devil up in the Harz mountains).

The cows had run off from the cowhands during a thunder storm but she got the blame.

Church's scholars had declared that

Exhibition shows what customs are up against

The history of customs is also a history of smuggling. Wooden legs with sliding doors and toy animals: every trick in the book and quite a few not in it have been used.

The Cologne customs museum has about 1,500 exhibits, but, says the man in charge, Heinrich Ashauer, that shows just a fraction of what smugglers get up to.

But it is impressive enough collection all the same. It demonstrates just how inventive smugglers can be. Alcohol and tobacco stored in a tree trunk and turned as firewood; double walls in suitcases and travel bags, storage space between shoe and sole; books and newspapers that contain no reading material: these are all elastic methods.

But over the years, the methods have got more cunning and the tricks trickier. They are caught only by accident, says Ashauer. Drugs are carried in wigs, diamonds in furry toy animals, clothing saturated in cocaine and munitions hidden in bread. Sausage is used as a hiding place for alcohol and a walking stick the handle of which can be quickly converted into a weapon.

Simple everyday items such as tin cans serve as vehicles for smuggling. In Holland, you can buy can specially made for the smuggler. He just pays his 15 guilders, stuffs his (or her) contraband in and seals it.

Ashauer says attitudes are sometimes of self-pity: "You aren't going to take away the child's doll, are you?" Customs officers are viewed as inhuman when they examine wheelchairs used by invalids.

Once, a declared item of value like a supposed antique was regarded as a brilliant hiding place for something else. But not anymore.

The exhibition has 135 condoms used to smuggle drugs. Several were found on a Columbian. He had stuffed them full of cocaine and then swallowed them in a bid to get it into Germany in 1984. He was caught.

Two years before that, 10 kilos of marijuana were found in a surfboard. Hashish is regularly smuggled in worked into baskets and into carpet pile as tufts. Necklaces are made out of hashish covered with a plastic paint. Marijuana is brought in as oss sticks.

Sometimes mistakes are made; three Tunisians coming in wearing vests to which were sewn simple little parcels were held on suspicion. But all that each packet contained was a verse of the Koran.

dpa

(Bremmer Nachrichten, 19 June 1987)

human doings connected with the devil were an extremely serious crime. In doing this, they gave a big boost to the belief in witches.

In 1487, precisely 500 years ago, a Dominican monk called Heinrich Institoris presented a systematic paper about witches, the notorious *Heresy-hunter*.

The book was to help the witch-hunters, to eliminate any doubts people might have about the existence of witches, and to help preparation and carrying out of witch trials.

"The accused either confesses on the neck, in which case she is guilty; or she doesn't confess, in which case she is also guilty because to have withheld such terrible torture, she must have been in league with the devil. Therefore she had practised the so-called science of silence and was shown to be a witch."

Spec told about a witch-trial judge who used his power to incite the peasants against witchcraft. He said he would go and burn out the "witch pest". He sent people out to go from house to house to collect money.

The judge in the hearing against Elisabeth Schmidt maintained that through her participation in Witches' Sabbath she knew the names of others involved and he tortured her on the rack to try and get her to say who they were.

Heresy-hunter was riddled with a morbid hatred of women: "Woman is by nature bad, a person who is quick to doubt her faith and even quicker to deny it — the very basis for witchcraft."

The work mentioned the involvement of male activity only in passing. Men were above all threatened by the devil when they stood by a charred woman, be it as son, husband or even defence counsel. In such cases they were then exposed as smelters.

But politics was also involved. For example, the Prince-Abbot of Fulda,

Allgemeine Zeitung

MATZ

Spec in 1631 set off a movement against witchhunts with a then anonymous "Warning paper over witch trials." In Paderborn, he was the father confessor to many alleged witches condemned to death. In his paper, he described what really happened at witch trials.

"The accused either confesses on the neck, in which case she is guilty; or she doesn't confess, in which case she is also guilty because to have withheld such terrible torture, she must have been in league with the devil. Therefore she had practised the so-called science of silence and was shown to be a witch."

At the end of the 19th century, it was estimated that up to two million people had been killed in witchhunts. But modern research puts the top figure at 100,000 dead.

Even today, Walpurgis night is a reminder of witch hunts and also that greater superstition not a morbid belief in witches have been eliminated.

A few years ago there were whisperings in a Belgian village that a farmer's wife had a black hand and that she had had a hand in accidents that two other villagers had had. It was being said that at nights she changed into a black cat.

Not without reason did Erich Kästner write in 1958: "The bloody red of the stroke is evergreen."

Balthasar von Derenburg, used the hounds as a means of finishing off the Protestants.

Witchhunting hit its zenith between 1590 and 1670. But even as late as 1749, they were still being burnt at the stake in Kempten. In Posen they were being burnt as late as 1793.

The main countries involved in witchhunting were Germany, France, the Netherlands, Switzerland, northern Italy and Scotland. It was much less pronounced in Eastern Europe, England, Ireland and Scandinavia. Southern Italy was not affected.

In June 1782, a servant girl in Switzerland called Anna Göldi was alleged to have made the child of her employer mentally and physically ill. The child was said to be suffering from cramps appeared to have become lame and to have wurtied nails and needles.

In the trial, the words "witchcraft" and "sorcery" were not mentioned. Instead the talk was of "poisoning". Anna Göldi was beheaded. That was the last witchtrial in Europe.

At the end of the 19th century, it was

estimated that up to two million people had been killed in witchhunts. But modern research puts the top figure at 100,000 dead.

Even today, Walpurgis night is a reminder of witch hunts and also that greater superstition not a morbid belief in witches have been eliminated.

A few years ago there were whisperings in a Belgian village that a farmer's wife had a black hand and that she had had a hand in accidents that two other villagers had had. It was being said that at nights she changed into a black cat.

Not without reason did Erich Kästner write in 1958: "The bloody red of the stroke is evergreen."

Anton Nitsch

Allgemeine Zeitung, Mainz, 11 July 1987

Archives stores everything for the crime-novel aficionado

Werner Puchalla, 33, and Reinhard Jahn, 31, have involved themselves for four years in murder and manslaughter, robbery and drug dealing, extortion and espionage.

They run an archive in Bochum with the initials BKA, which are also, not coincidentally, the initials of the *Bundeskriminalamt*, the Federal CID. It is the only centre in West Germany where everything to do with books about crime and their authors is systematically collected.

It began almost by accident. Jahn followed his interest in make-believe crime as a journalist on a magazine and as the author of several books and plays.

He often worked with Puchalla, an advertising copywriter. And the information piled up: books, information about publishers, newspaper articles, one day they collated it all — and the BKA was born.

The library, which is housed in their private homes in Essen and Bochum, in the Ruhr, gets no public funds. It serves as a reference point for specialists in the field and students. There are 11,000 books and information about 200 authors, enough for students to get enough material for state examinations.

There is a practical side to its work: information about weapons used in armed robbery both in East Germany and West Germany is stored, allowing something to be learned about regional connections in crime.

Some publishers are now being more careful about looking after the more important authors and offering improved, carefully translated books and unabridged new books.

Crime novels used to be kept down to

150 pages. That is changing. For example, Diogenes has brought out new series of Raymond Chandler and Georges Simenon works in their entirety. So no one need mourn the absence of first editions.

The archive has some notable old books on its shelves, including one in which James Bond had his first adventure in Germany.

The crime novel is improving its image and some publishers are more often bringing them out presented as "more serious" literature — and cashing in on the subject.

So the BKA has developed as a centre for all sorts of events to do with this genre. Last year, for instance, it arranged an exhibition, "Crime and Fiction," as part of a meeting of authors where demonstrations were made about how a book is put together — from source material to draughts and manuscripts.

The archive also works with publishers of anthologies and moderators of seminars and discussions.

Jahn and Puchalla put their archive together with books from all over Germany. Every time they travelled somewhere, they bought books at flea markets and second-hand shops. Berlin was a particularly fruitful hunting ground.

Jahn says crime novels cost a mark regardless of author or quality or other factor. Sometimes, dealers mark up older books.

The pair reckon it will take until the mid-1990s to complete the job.

Rolf Stiefel

Deutsches Allgemeines Sonntagsblatt, Hamburg, 5 July 1987

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

SOCIETY

Addict-prostitutes biggest Aids risk

DIE WELT
WORLDWIDE DAILY NEWSPAPER

North Rhine-Westphalia has become the first German Land to opt for the use of methadone as a heroin substitute to treat addicts. The State Health Minister, Hermann Heinemann, said there would be an initial five-year trial period.

Aids has made West Germany's closely related drug and prostitution problems a much more complicated and deadly matter.

Drug addicts needing money, particularly those already HIV-positive, are the biggest AIDS threat in Ruhr cities.

Although the State says chemists should sell hypodermic syringes for a few pennies without asking too many questions, many addicts still indiscriminately grab the nearest used needle they can find.

Düsseldorf alone has some 2000 heroin addicts, half of them women.

Unlike men, nearly all the women pay for their drugs by selling sex.

A woman has to pay DM500 for a fix in Bochum. In Düsseldorf it can be as low as DM400 because the market is flooded.

But whatever the price, an addict needs between DM12,000 and 15,000 a month.

A conservative estimate puts the number of AIDS carriers among prostitutes at between 150 and 200.

More horrifying: a prostitute can earn 30 per cent more if she uses no condom.

As Dr Heiner Klinkhammer, of the Düsseldorf Ministry of Health and Social Services put it: "The red-light districts are subject to the laws of market forces."

The customers want quick fun and are prepared to pay extra for unusual requests that don't require condoms.

This is, said Dr Klinkhammer "because a fixer is placed under an unimaginable compulsion to get the drug into his veins as quickly as possible. He thinks of nothing else, doesn't heed warnings and evades only for the relieving kick. He lives from one injection to the other. His inner clock dictates when he needs it and he doesn't care whether the needle is infected or not."

Because of the fatal accumulation of new infections by needles or intercourse, the latest research has led Klinkhammer to conclude that about 60 per cent of infected addicts develop the disease in comparison to 35 per cent for the rest of the population.

The writers admit having AIDS but are forced to work on to pay for drugs.

The letters are a constant reminder to the Minister of the horrors he witnessed while visiting clinics in California.

He saw the horrible way that AIDS patients met their end. They were, he said, "pictures which will haunt me for the rest of my life." In his position, Dr Klinkhammer is the closest rival to the Minister in terms of the number

Continued from page 12
Bielefeld environmental affairs official Uwe Lahl is worried the Ossebnith report may be used to sideline public-sector consumer advice bureaux.

The work of consumer test magazines will then be in danger," he says. "In many cases their findings are based on tests conducted by the authorities."

Ralf Gierkes

(Frankfurter Rundschau, 1 July 1987)

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987

THE GERMAN TRIBUNE

No. 1283 - 26 July 1987